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**FEDERAL-STATE-PRIVATE  
COOPERATIVE SNOW SURVEYS**

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# ***WATER SUPPLY OUTLOOK FOR OREGON***

Prepared by

**U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE**

Collaborating with

**OREGON STATE UNIVERSITY**

and

**STATE ENGINEER of OREGON**

Data included in this report were obtained by the agencies named above  
in cooperation with other Federal, State and private organizations.

AS OF  
**JUNE 1, 1971**



## TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters of key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

## PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center Room 209, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	P. O. Box "F", Palmer, Alaska 99645
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	12417 Federal Building, Denver, Colorado 80202
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 970, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84111
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

## PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



# **WATER SUPPLY OUTLOOK FOR OREGON**

and  
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

*Issued*

JUNE 8, 1971

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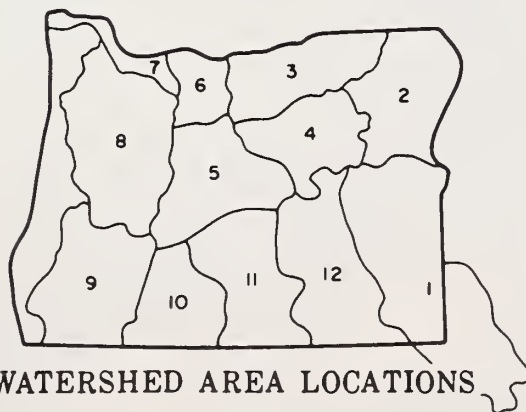
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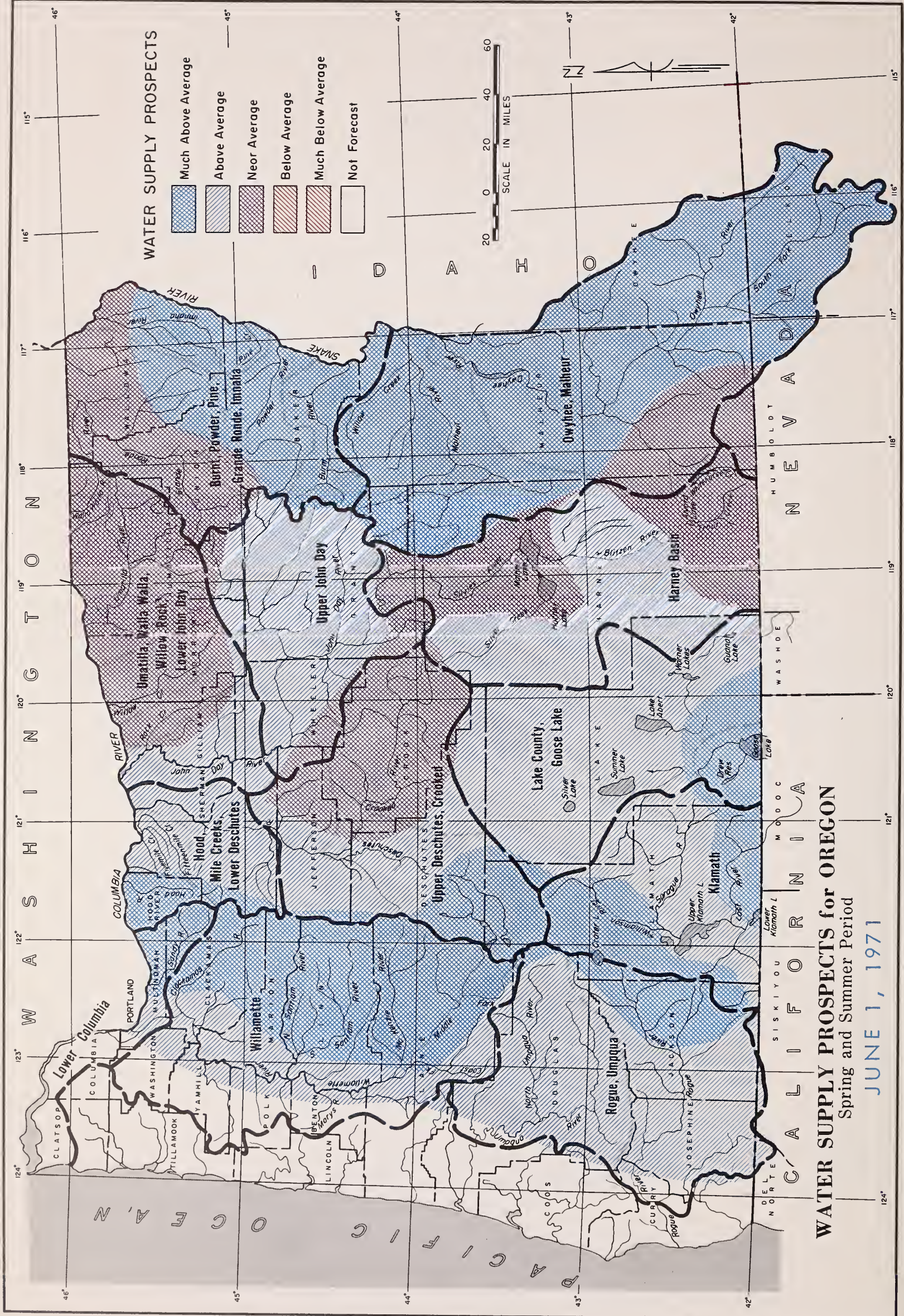


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WATER SUPPLY PROSPECTS

- Much Above Average
- Above Average
- Near Average
- Below Average
- Much Below Average
- Not Forecast

SCALE IN MILES

WATER SUPPLY PROSPECTS for OREGON

Spring and Summer Period

JUNE 1, 1971



# WATER SUPPLY OUTLOOK for OREGON

JUNE 1, 1971

Water Supplies during 1971 will be excellent. A cool spring has retarded snow melt and the snow pack at the higher elevations is 4 to 5 times normal. Most reservoirs are full and streamflow to date has been exceptionally good over the entire state.

## SNOW COVER

The June 1 snow pack is 4 to 5 times normal along the Cascade Crest and at the higher elevations in eastern Oregon. Cool weather retarded the snow melt and much of the record May 1 snow remains.

## PRECIPITATION

Rainfall during May was much above normal in south central Oregon with some stations in this area reporting snow during the last week of the month. Other areas were near the normal for the month except the John Day basin which received amounts 70% of average.

## RESERVOIR STORAGE

Twenty-six major irrigation reservoirs are currently storing 3,054,000 acre feet of water. This is 96% of capacity and 125% of average.

## STREAMFLOW

Even though the snow melt was less than what would normally occur during the month streamflow was above normal. Streams are expected to continue producing good amounts of water as the remainder of the snow cover melts.

Representative revised May-September forecasts are as follows:

<u>NAME</u>	<u>FORECAST % OF 1953-67 AVERAGE</u>
Owyhee Net Inflow	146%
Umatilla at Pendleton	100%
Grande Ronde at La Grande	108%
Mid Fork Willamette at Oakridge	135%
Rogue at Raygold	118%
Upper Klamath Lake net Inflow	125%

THIS REPORT CONTAINS DATA FURNISHED BY THE OREGON STATE ENGINEER,  
U. S. GEOLOGICAL SURVEY, NOAA NATIONAL WEATHER SERVICE, AND OTHER  
COOPERATORS.





JUNE 1, 1971

## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average <sup>i</sup>
OWYHEE, MALHEUR WATERSHEDS					
Bully Creek at Warmspring	25	191	March-May	b	13.1
Jordan Creek above Lone Tree Creek	60	125	May-July	b	48
Malheur near Drewsey	55	167	May-July	52	33
	56	167	May-Sept.	53	34
Malheur, North Fork at Beulah <sup>d</sup>	55	167	May-July	57	33
	62	163	May-Sept.	64	38
Owyhee Reservoir net Inflow <sup>k</sup>	240	150	May-July	233	160
	261	146	May-Sept.	255	179
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS					
Bear near Wallowa	69	121	May-Sept.	77	57
Burnt near Hereford <sup>d</sup>	25	175	May-July	23	14.3
	26	168	May-Sept.	24	15.5
Catherine near Union	64	123	May-Sept.	69	52
Eagle Creek above Skull Creek	180	126	May-July	182	143
	195	125	May-Sept.	198	156
Grande Ronde at La Grande	110	109	May-July	116	101
	114	108	May-Sept.	120	105
Hurricane Creek near Joseph	55	122	May-Sept.	53	45
Imnaha at Imnaha	304	135	May-Sept.	272	225
Lostine near Lostine	142	122	May-Sept.	141	116
Powder River near Baker	54	128	May-July	b	42
	56	127	May-Sept.	b	44
Wallowa, East Fork near Joseph <sup>d</sup>	10.5	121	May-July	b	8.7
	13.0	116	May-Sept.	b	11.2
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS					
Birch Creek at Rieth	9.5	107	May-July	b	8.9
	9.5	107	May-Sept.	b	8.9
Butter Creek near Pine City	3.8	95	May-July	b	4.0
McKay near Pilot Rock	7.0	64	May-Sept.	b	11.0
Umatilla River near Gibbon	44	105	May-July	b	42
	50	104	May-Sept.	b	48
Umatilla River at Pendleton	75	100	May-July	89	75
	80	100	May-Sept.	93	80
Walla Walla, No. Fork near Milton	9.8	120	May-July	b	8.2
	10.5	121	May-Sept.	b	8.7
Walla Walla, So. Fork near Milton	40	105	May-July	b	38
	53	106	May-Sept.	b	50
UPPER JOHN DAY WATERSHEDS					
Camas Creek near Ukiah	19.5	100	May-July	b	19.5
	20.1	100	May-Sept.	b	20.1
John Day at Prairie City	31	103	May-July	b	30
	36	105	May-Sept.	b	34
John Day, Middle Fork at Ritter	84	120	May-July	84	70
	88	119	May-Sept.	87	74
John Day, North Fork at Monument	402	111	May-July	b	362
	419	111	May-Sept.	b	377
Strawberry near Prairie City	9.1	117	April-July	9.9	7.7
	9.8	117	April-Sept.	10.6	8.4

# STREAMFLOW FORECASTS as of June 1, 1971

STREAMFLOW FORECASTS as of June 1, 1971		THIS YEAR		PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average <sup>i</sup>
UPPER DESCHUTES, CROOKED WATERSHEDS					
Beaver Creek near Paulina	6.6	99	May-July	b	6.7
	6.8	97	May-Sept.	b	7.0
Crane Prairie Reservoir total Inflow	99	146	May-July	b	68
	158	142	May-Sept.	b	111
Crescent at Crescent Lake <sup>d</sup>	26	140	May-July	b	18.5
	31	129	May-Sept.	b	24
Crooked near Post	44	116	May-July	b	38
	46	115	May-Sept.	b	40
Deschutes at Benham Falls <sup>d</sup>	365	120	May-July	250	305
	566	111	May-Sept.	420	509
Deschutes below Snow Creek	89	151	May-Sept.	b	59
Deschutes, Little near La Pine <sup>d</sup>	98	161	May-July	34	61
	114	156	May-Sept.	39	73
Ochoco Reservoir net Inflow	11.0	91	May-Sept.	b	12.1
Odell near Crescent	35	140	May-Sept.	b	25
Squaw near Sisters	57	121	May-Sept.	43	47
Tumalo near Bend <sup>d</sup>	50	116	May-Sept.	36	43
				b	
				b	
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS					
				b	
Hood near Hood River	255	135	May-July	b	189
	329	135	May-Sept.	b	243
Hood, West Fork near Dee	120	133	May-July	78	90
	145	129	May-Sept.	97	112
White below Tygh Valley	133	155	May-July	63	86
	150	146	May-Sept.	76	103
LOWER COLUMBIA WATERSHEDS					
Columbia at The Dalles <sup>d</sup>	72,200	121	May-June	b	59,688
	110,900	120	May-Sept.	b	92,457
Sandy River near Marmot	283	118	May-July	b	239
	337	115	May-Sept.	b	293
WILLAMETTE WATERSHEDS					
Clackamas at Estacada	608	134	May-July	358	455
	729	129	May-Sept.	466	566
Clackamas above Three Lynx	517	148	May-July	273	348
	625	141	May-Sept.	368	422
McKenzie at McKenzie Bridge	419	124	May-July	266	338
	587	121	May-Sept.	395	487
McKenzie near Vida	907	120	May-July	b	754
	1,165	118	May-Sept.	b	989
McKenzie, So. Fork near Rainbow	189	128	May-July	b	148
	226	127	May-Sept.	b	178
Oak Grove Fork above Power Intake	124	138	May-July	76	90
	167	130	May-Sept.	115	128
Row near Dorena	77	133	May-July	b	58
	84	135	May-Sept.	b	62
Santiam, North at Mehama <sup>d</sup>	750	146	May-July	b	513
	870	142	May-Sept.	b	614
Santiam, South at Waterloo	475	140	May-July	b	337
	508	135	May-Sept.	b	375
Willamette, Mid. Fk. blw. N. Fk. nr. Oakridge <sup>d</sup>	690	141	May-July	394	490
	800	135	May-Sept.	485	593
Willamette, No. Fk. of Mid. Fk. near Oakridge	166	132	May-July	b	126
	184	125	May-Sept.	b	147
Willamette at Salem <sup>d</sup>	3,800	136	May-July	b	2783
	4,300	131	May-Sept.	b	3286



# STREAMFLOW FORECASTS as of June 1, 1971

STREAMFLOW FORECASTS as of June 1, 1971		THIS YEAR		PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average †
ROGUE, UMPQUA WATERSHEDS					
Applegate near Copper	153	109	April-Sept.	b	140
Clearwater above Trap Creek <sup>d</sup>	61	102	May-Sept.	b	60
Fourmile Lake net Inflow	8.1	197	April-Sept.	b	4.1
Hyatt Reservoir net Inflow <sup>d</sup>	7.5	312	May-Sept.	b	2.4
Illinois River near Kerby	113	122	May-July	b	93
	118	119	May-Sept.	b	99
Little Butte, N. Fk. at Fish Lake nr. Lake Cr.	15.0	123	May-Sept.	b	12.3
Little Butte, S. Fk. near Lake Creek	50.0	152	April-July	b	33
Rogue above Prospect	260	135	May-July	b	192
	340	136	May-Sept.	b	249
Rogue, South Fork near Prospect <sup>d</sup>	70	152	May-July	b	46
	81	142	May-Sept.	b	57
Rogue River below South Fork	490	119	May-July	b	413
	650	118	May-Sept.	b	551
Rogue at Raygold near Central Point	640	123	May-July	392	525
	806	118	May-Sept.	528	685
Rogue at Grants Pass	780	118	May-Sept.	b	662
Umpqua, No. blw. Lemolo Res. nr. Toketee Falls <sup>d</sup>	181	123	May-Sept.	b	147
KLAMATH WATERSHEDS					
Clear Lake Reservoir Inflow	20.0	132	May-Sept.	b	15.1
Gerber Reservoir Inflow	9.2	184	May-Sept.	b	5.0
Sprague near Chiloquin	241	116	May-Sept.	b	208
Upper Klamath Lake net Inflow <sup>k</sup>	526	125	May-Sept.	234	419
Williamson below Sprague River	425	128	May-Sept.	b	331
LAKE COUNTY, GOOSE LAKE WATERSHEDS					
Chewaucan near Paisley	71	122	May-July	61	58
	75	121	May-Sept.	65	62
Deep above Adel	70	167	May-July	47	42
	72	164	May-Sept.	49	44
Drews Reservoir net Inflow <sup>d</sup>	15.0	132	May-Sept.	b	11.3
Honey near Plush	15.0	142	May-July	10.5	10.5
	15.0	140	May-Sept.	10.6	10.7
Silver Creek near Silver Lake	12.2	101	May-July	b	12.1
	14.0	100	May-Sept.	b	14.0
Twentymile near Adel	11.5	120	May-July	b	9.6
	12.1	121	May-Sept.	b	10.0
HARNEY BASIN WATERSHEDS					
Donner und Blitzen near Frenchglen	48	120	May-July	41	40
	54	120	May-Sept.	45	45
Silver near Riley	8.1	120	May-July	4.9	6.7
Silvies near Burns	39	100	May-July	42	39
	41	100	May-Sept.	44	41
Trout near Denio	5.5	100	May-July	6.9	5.5
	6.0	100	May-Sept.	7.3	6.0

JUNE 1, 1971

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average
OWYHEE, MALHEUR WATERSHEDS				
Antelope	70.0	70.0	55.0	37.3
Beulah Reservoir*	60.0	60.0	60.0	48.8
Bully Creek	30.0	25.8	27.9	18.6
Owyhee	715.0	712.6	715.0	517.0
Warm Springs	191.0	188.4	188.8	131.9
* Known as Agency Valley.				
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS				
Phillips Lake	73.5	73.5	68.7	- -
Thief Valley	17.4	17.4	17.4	- -
Unity	25.2	24.7	24.4	27.3
Wallowa Lake	37.5	30.0	25.6	30.6
UMATILLA, WALLA WALLA, WILLOW, ROCK LOWER JOHN DAY WATERSHEDS				
Cold Springs	50.0	49.8	50.0	48.0
McKay	73.8	64.9	70.8	62.1
UPPER DESCHUTES, CROOKED WATERSHEDS				
Crane Prairie	55.3	48.6	33.4	42.4
Crescent Lake	86.9	56.7	49.0	51.9
Ochoco	47.5	45.2	42.7	37.9
Prineville	153.0	152.7	155.8	146.8
Wickiup	200.0	188.6	152.8	172.0
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS				
Clear Lake (Wasco)	11.9	8.4	7.0	4.8
WILLAMETTE WATERSHEDS				
Blue River	85.6*	6.4	- -	- -
Cottage Grove	30.0*	9.7	28.7	27.6
Cougar	155.2*	9.8	144.1	- -
Detroit	299.9*	12.1	294.7	268.9
Dorena	70.5*	4.0	65.0	63.6
Fall Creek	115.0*	58.0	112.9	- -
Fern Ridge	94.2*	13.9	85.5	89.8
Foster	30.0*	6.1	25.4	- -
Green Peter	270.0*	20.7	250.8	- -
Hills Creek	200.0*	8.8	166.1	187.6
Lookout Point	337.2*	17.3	326.7	327.4
Timothy Lake	61.7	6.6	62.8	59.4
*Multiple purpose reservoir--space reserved primarily for flood runoff.				

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average
ROGUE, UMPQUA WATERSHEDS				
Emigrant Lake	39.0	36.4	37.0	35.6*
Fish Lake	7.8	8.1	6.7	6.9
Fourmile Lake	16.1	13.2	15.4	13.0
Howard Prairie	60.0	60.6	60.6	44.6
Hyatt Prairie	16.1	16.0	16.1	15.2
*Average for years of record (in base period) after reconstruction.				
KLAMATH WATERSHEDS				
Clear Lake	440.2	415.3	351.6	242.2
Gerber	94.0	92.2	83.7	61.9
Upper Klamath Lake	584.0	553.0	571.7	538.3
LAKE COUNTY, GOOSE LAKE WATERSHEDS				
Cottonwood	8.7	8.7	8.7	6.6*
Drews	63.0	63.0	62.4	52.8
Thompson Valley	19.5		- -	14.7
*Average for years of record (in base period) after reconstruction.				



# BASIC DATA SUPPLEMENT 1

JUNE 1, 1971

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)	
				Last Yr.	Ave.

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)	
				Last Yr.	Ave.

Annie Springs	6/1	98	48.7	28.0	- -
Billie Creek Divide	5/28	0	0.0	0.0	- -
Blue Mountain Camp	5/28	0	0.0	0.0	- -
Cascade Summit	5/27	54	27.1	4.0	6.9 m
Clear Lake	5/28	2	0.9	0.0	T m
Clear Lake (Experimental)	5/28	6	2.8	0.0	0.3 m
Cold Springs Camp	5/24	73	35.0	9.6	- -
Detroit (City)	6/1	0	0.0	0.0	- -
Detroit Dam	6/1	0	0.0	0.0	- -
Diamond Lake	5/28	23	11.9	1.9	- -
Diamond-Crater Summit	5/28	38	20.8	11.0	- -
Diamond-Crater Sum. (Alt.)	5/28	56	21.8	11.0	- -
Diamond Lake Junction	5/28	0	0.0	0.0	- -
Fourmile Lake	6/1	22	8.5	0.0	- -
Hogg Pass	6/1	81	42.0	13.2	- -
Hungry Flat	5/29	0	0.0	0.0	- -
Marion Forks	6/1	0	0.0	0.0	- -
Marks Creek	c		0.0	- -	- -
McCredie Springs	2/27	0	0.0	0.0	0.0 m
Meridian Dam	2/27	0	0.0	0.0	0.0 m
Mill City	2/27	0	0.0	0.0	- -
New Dutchman Flat #2	5/29	97	54.9	35.2	- -
Oakridge	5/27	0	0.0	0.0	0.0 m
Park Headquarters	6/1	128	66.8	46.1	- - m
Phlox Point	b		42.4	43.6	- - m
Quartz Mountain	6/1	0	0.0	0.0	- -
Quartz Mtn. (Ext.)	6/1	0	0.0	0.0	- -
Railroad Overpass	5/27	0	0.0	0.0	0.0 h
Salt Creek Falls	5/27	21	9.8	0.0	0.7 m
Santiam Junction	6/1	4	1.8	0.0	- -
Still Creek	5/28	41	21.3	1.4	2.4 m
Still Creek (Alt.)	5/28	51	25.8	- -	- -
Sun Mountain	5/27	20	10.5	1.7	- -
Tangent	5/29	0	0.0	0.0	- -
Timothy Lake	c		- -	- -	- -
Tollgate	5/28	0	0.0	3.5	0.7 m
Umbrella Falls	6/1	55	85.2	48.3	- -
Weston Mountain	5/28	0	0.0	0.0	- -
Whitewater Bridge	6/1	0	0.0	0.0	- -

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

BASIC DATA SUPPLEMENT 2

JUNE 1, 1971

SOIL MOISTURE

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average i
OWYHEE, MALHEUR WATERSHEDS							
Bear Creek (Nev.)	7800	72	16.8	c			
Big Bend (Nev.)	6700	48	16.7	c			
Blue Mountain Spring	5900	42	16.9	5/28	11.8	14.0	13.3
Crane Prairie	5375	48	18.2	5/28	18.2	18.1	17.8
Folly Farm Summit	4450	30	12.5	c		- -	- -
Jack Creek, Lower (Nev.)	6800	48	8.6	4/30	7.5	8.1 <sup>f</sup>	- -
Jordan Valley	4390	48	19.3			16.5	16.3
Mud Flat (Ida.)	5500	48	12.8				
Rodeo Flat (Nev.)	6800	42	11.0				
Taylor Canyon (Nev.)	6200	48	15.1				
Triangle (Ida.)	5150	48	16.6				
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS							
Blue Mountain Summit	5100	36	16.8	5/27	16.1	16.1	14.9
Dooley Mountain	5430	36	9.2	5/27	7.1	6.3	5.5
Emigrant Springs	3925	48	22.3	5/27	20.9	21.9	20.0
Ladd Summit	3730	48	18.9	6/6	12.6	13.8	11.5
Moss Springs	5850	36	25.8	6/6	15.8	19.3	- -
Tollgate	5070	48	23.6	5/26	18.7	19.0	19.7
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS							
Battle Mountain Summit	4340	48	13.8	5/27	12.5	12.8	12.5
Emigrant Springs	3925	48	22.3	5/27	20.9	21.9	20.0
Tollgate	5070	48	23.6	5/26	18.7	19.0	19.7
UPPER JOHN DAY WATERSHEDS							
Battle Mountain Summit	4340	48	13.8	5/27	12.5	12.8	12.5
Beech Creek	4800	48	21.3	5/28	16.1	16.4	16.0
Blue Mountain Spring	5900	42	16.9	5/28	11.8	14.0	13.3
Blue Mountain Summit	5100	36	16.8	5/27	16.1	16.1	14.9
Derr	5670	24	9.0	c		- -	- -
Marks Creek	4540	36	14.1	5/25	13.5	13.3	13.2
Snow Mountain	6300	48	16.7	5/27	16.2	16.4	15.5
Starr Ridge	5150	36	10.6	5/28	10.5	10.6	10.3
Williams Ranch	4500	42	17.9	5/28	16.2	15.6	15.5
UPPER DESCHUTES, CROOKED WATERSHEDS							
Derr	5670	24	9.0			- -	- -
Marks Creek	4540	36	14.1	5/25	13.5	13.3	13.2
Snow Mountain	6300	48	16.7	5/27	16.2	16.4	15.5
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS							
Cooper Spur	3490	72	26.4	6/2	14.4	- -	- -
KLAMATH WATERSHEDS							
Bly Mountain	5090	42	14.0	5/27	12.5	12.4	- -



# BASIC DATA SUPPLEMENT 2

JUNE 1, 1971

## SOIL MOISTURE

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average i
LAKE COUNTY, GOOSE LAKE WATERSHEDS							
Camas Creek	5720	42	14.5	5/27	12.7	--	12.6
Quartz Mountain	5230	48	15.3	6/4	10.5	--	9.5
HARNEY BASIN WATERSHEDS							
Blue Mountain Spring	5900	42	16.9	5/28	11.8	14.0	13.3
Fish Creek	7900	48	15.0	c		--	--
Folly Farm	4450	30	12.5	c		--	--
Silvies	6900	48	16.4	c		--	--
Snow Mountain	6300	48	16.7	5/27	16.2	16.4	15.5
Starr Ridge	5150	36	10.6	5/28	10.5	10.6	10.3
Willow-Bald	5000	24	6.6	5/27	6.5	6.4	5.3

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

## BASIC DATA SUPPLEMENT 3

JUNE 1, 1971

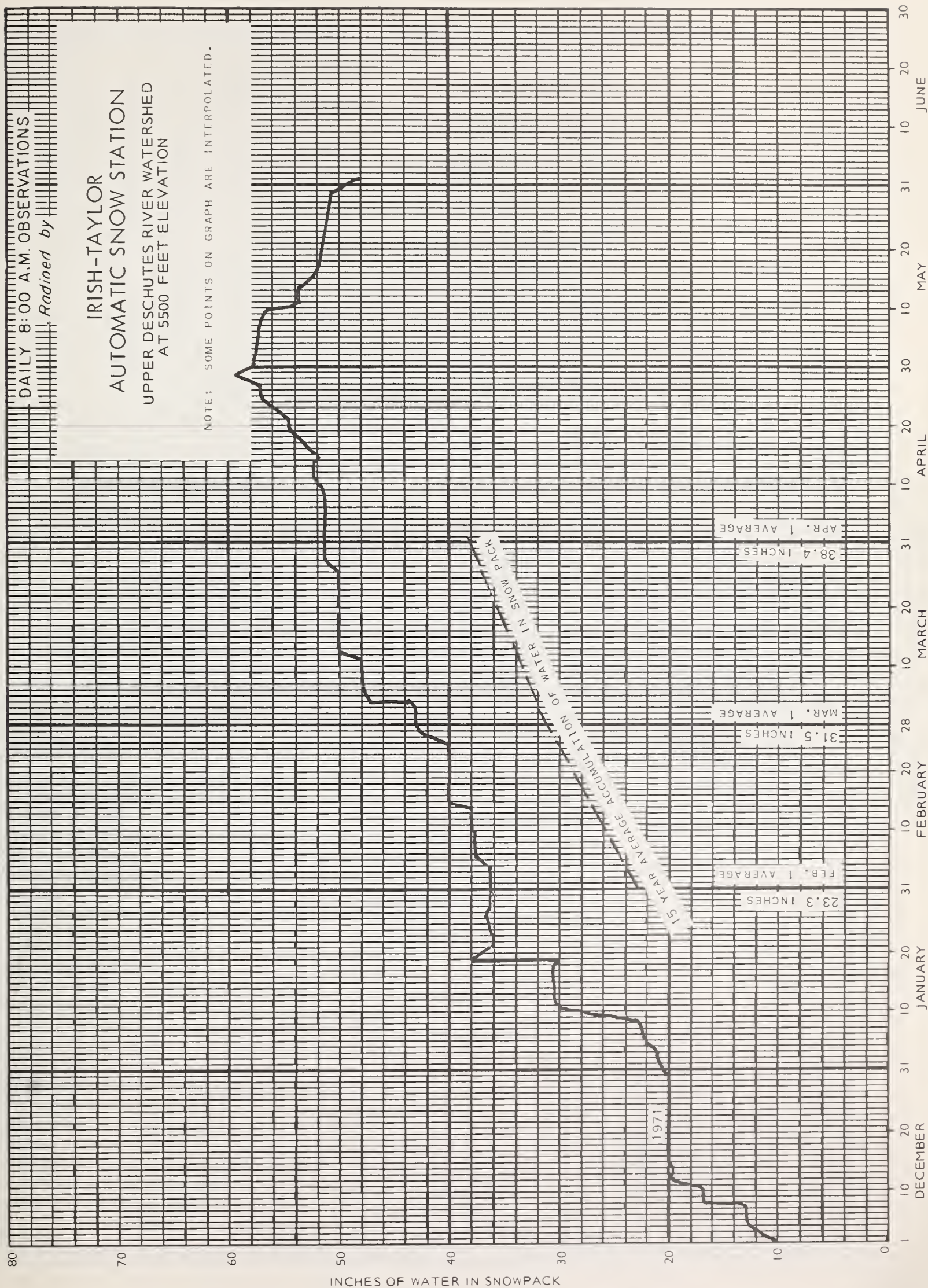
### PRECIPITATION (Inches)

[illegible]



# BASIC DATA SUPPLEMENT 4

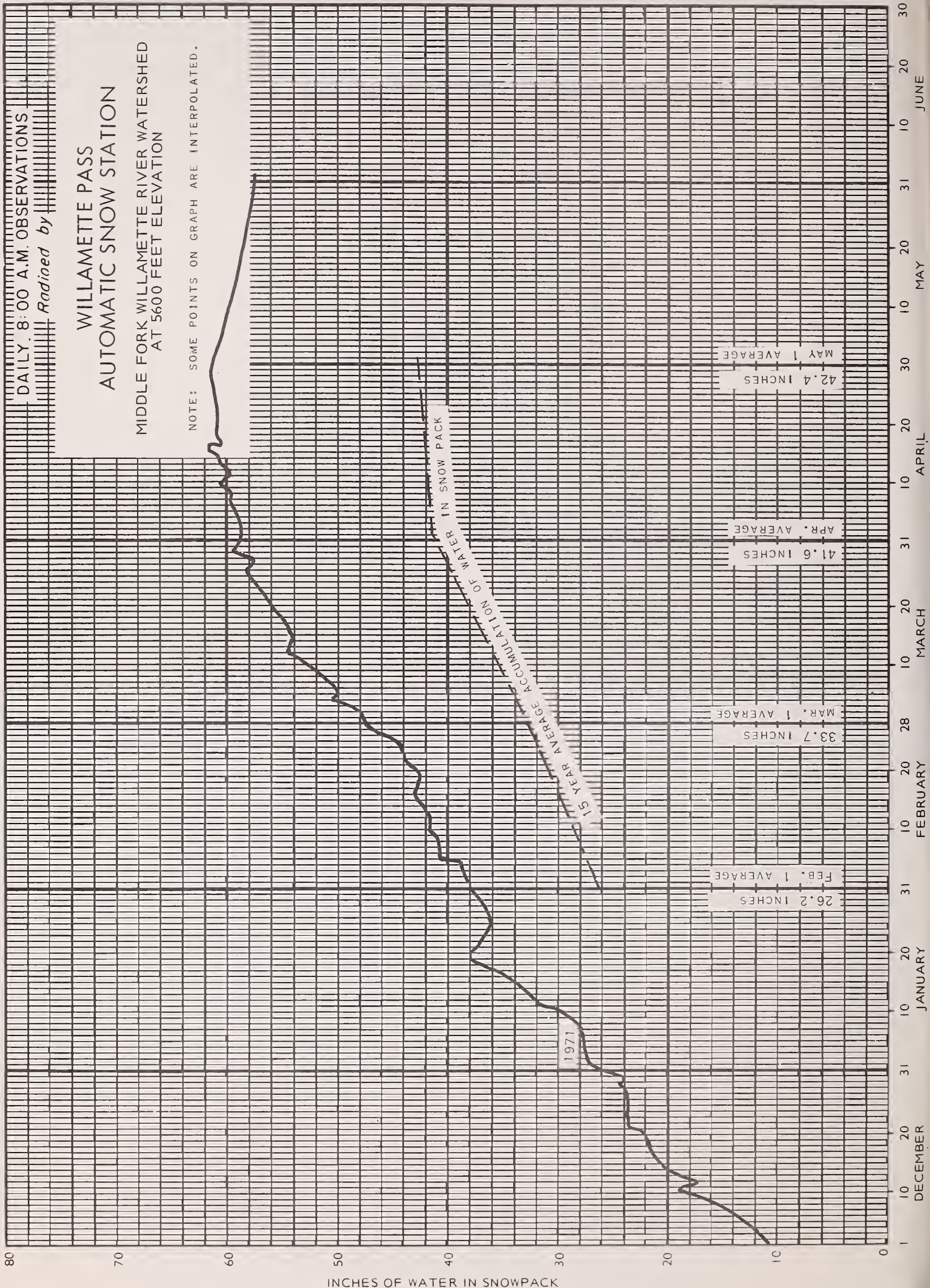
U.S.D.A. SOIL CONSERVATION SERVICE DAILY RADIO REPORTS BY AUTOMATIC SNOW MEASURING STATION





# BASIC DATA SUPPLEMENT 4

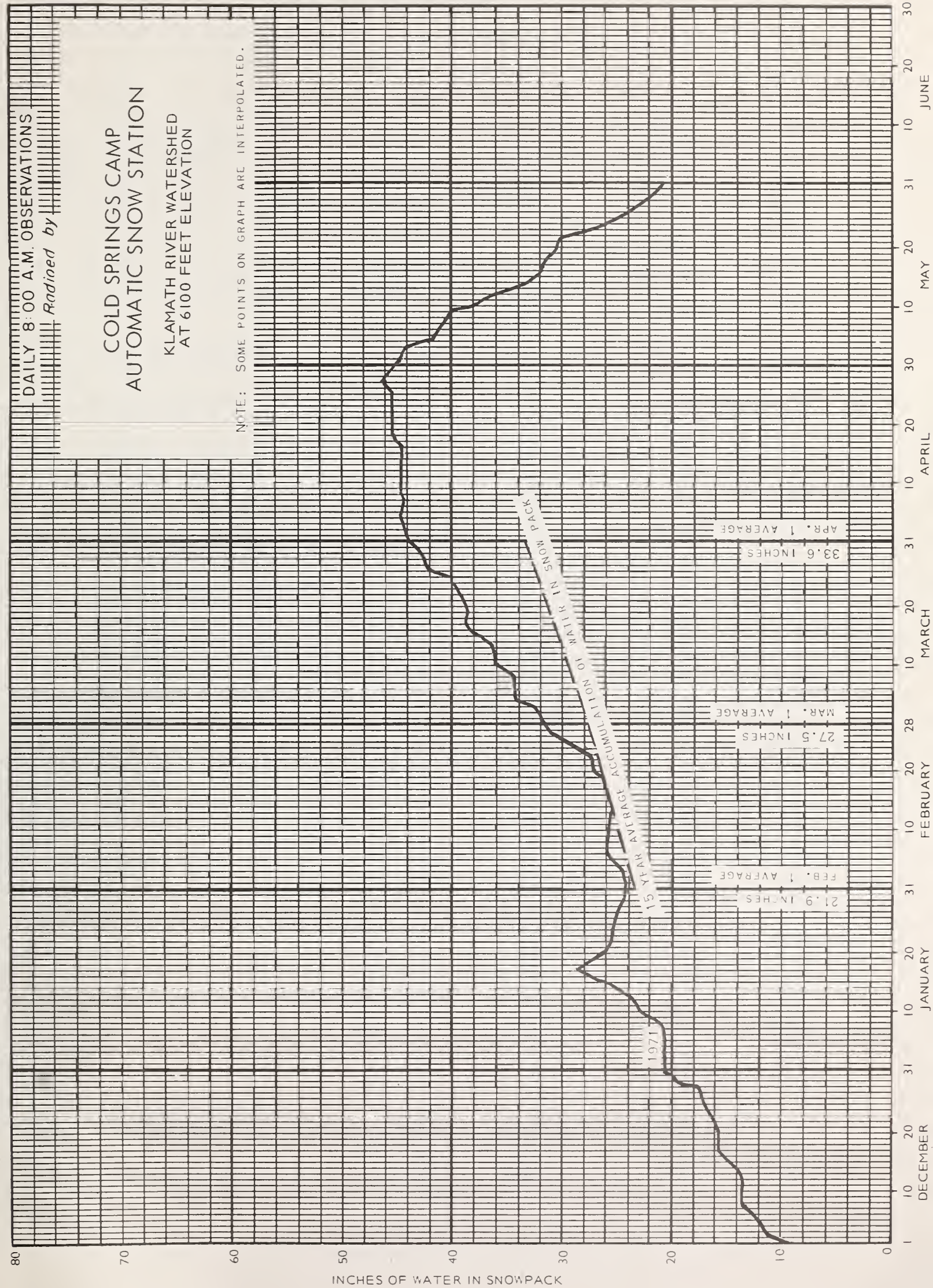
U.S.D.A. SOIL CONSERVATION SERVICE DAILY RADIO REPORTS BY AUTOMATIC SNOW MEASURING STATION





# BASIC DATA SUPPLEMENT 4

U.S.D.A. SOIL CONSERVATION SERVICE DAILY RADIO REPORTS BY AUTOMATIC SNOW MEASURING STATION







## Appendix 1

PREVIOUSLY UNPUBLISHED OREGON SNOW SURVEY DATA  
1970-71 Season

SNOW COURSE Name	No.	Date	Depth (In.)	Water (In.)
Battle Creek (Aerial)	16G9a	3/6/71	4	1.2
Beatty (PP&L course)	1	1/5/71	6	1.0
Blue Mountain Camp	18D16	10/26/70	4	0.4
		11/25/70	4	0.4
Bly 101 Ranch (PP&L course) 10		1/5/71	8	1.9
Buck Pasture (Aerial)	18F6a	3/6/71	4	1.2
Buckskin Lake (Aerial)	18G8a	3/6/71	0	0.0
Bull Basin (Aerial)	16G10a	3/6/71	4	1.2
Bully Creek (Aerial)	18E21a	3/6/71	T	T
Call Meadows (Aerial)	18F7a	3/6/71	18	5.8
Cascade Summit	22F3	1/14/71	95	23.4
		2/10/71	70	27.5
		3/12/71	118	41.8
		4/14/71	118	51.0
		5/13/71	76	35.8
Champion	22F9	2/16/71	72	31.6
		3/16/71	144	50.0
		4/14/71	115	52.9
Cooper Spur	21D25	12/1/70	24	3.0
		12/15/70	28	5.9
		1/15/71	41	12.4
		2/16/71	21	8.2
		3/15/71	59	18.8
Cooper Spur (Alternate)	21D25	12/1/70	24	3.2
		12/15/70	33	7.5
		1/15/71	45	12.3
		2/16/71	26	10.3
		3/15/71	66	19.8
Cottonwood-Indian (Aerial)	17F2a	3/6/71	T	T
Denio (Aerial)	18G6a	3/6/71	0	0.0

SNOW COURSE <u>Name</u>	<u>No.</u>	<u>Date</u>	Depth <u>(In.)</u>	Water <u>(In.)</u>
Detroit (City)	22E1	1/14/71	29	3.8
		2/16/71	0	0.0
		3/15/71	10	4.0
		4/15/71	0	0.0
Detroit Dam	22E2	1/14/71	24	2.7
		2/16/71	0	0.0
		3/15/71	3	1.5
		4/15/71	0	0.0
Fish Creek (Aerial)	18G2a	3/6/71	68	24.5
		3/30/71	84	31.9
Flag Prairie (Aerial)	18E26a	3/6/71	21	6.7
Gerber	21G4	12/18/70	4	0.5
		1/14/71	10	2.5
		2/15/71	0	0.0
		3/15/71	10	3.5
Golden Curry Creek	22F10	2/16/71	13	5.4
		3/16/71	46	15.3
		4/14/71	18	8.6
Goodrich Lake (Aerial)	18E6a	5/13/71	102	53.7
Greenpoint Reservoir	21D1	3/8/71	69	22.9
Hogg Pass	21E6	1/14/71	121	32.2
		2/16/71	104	42.0
		3/15/71	159	59.3
		4/15/71	141	65.3
Hyde Pasture (Aerial)	16G5a	3/6/71	16	5.1
Indian Creek Butte (Aerial)	18E24a	3/6/71	59	18.8
Lake of The Woods	22G15	1/12/71	28	8.1
		2/12/71	22	7.1
		3/11/71	36	12.0
		4/13/71	30	11.5
Laurel Mountain	23E2	3/11/71	39	13.2
Layng Creek R. S.	22F13	1/15/71	6	0.8
		2/16/71	0	0.0
		3/16/71	0	0.0
		4/14/71	0	0.0

SNOW COURSE Name	No.	Date	Depth (In.)	Water (In.)
Logan Valley (Aerial)	18E22a	3/6/71	25	8.0
Lookout Butte (Aerial)	17G6a	3/6/71	T	T
Louse Canyon (Aerial)	17G4a	3/6/71	2	0.4
Lund Park	22F12	1/15/71	10	2.3
		2/16/71	0	0.0
		3/16/71	5	1.5
		4/14/71	0	0.0
Marion Forks	21E4	1/14/71	75	15.6
		2/16/71	51	19.4
		3/15/71	80	28.1
		4/15/71	62	27.2
Marks Creek	20E1	10/8/70	T	T
		11/27/70	12	1.8
McCredie Springs	22F6	1/12/71	11	1.1
		2/10/71	0	0.0
		3/12/71	5	1.7
		4/14/71	0	0.0
		5/13/71	0	0.0
Meridian Dam	22F8	1/12/71	0	0.0
		2/10/71	0	0.0
		3/12/71	0	0.0
		4/14/71	0	0.0
		5/13/71	0	0.0
Mill City	22E3	1/14/71	6	2.0
		2/16/71	0	0.0
		3/15/71	0	0.0
		4/15/71	0	0.0
Oakridge	22F7	1/12/71	T	T
		2/10/71	0	0.0
		3/12/71	0	0.0
		4/14/71	0	0.0
		5/13/71	0	0.0
Oregon Canyon (Aerial)	17G5a	3/6/71	4	1.2
Parkdale	21D23	12/1/70	8	1.0
		12/15/70	12	2.5
		1/15/71	11	2.0
		2/16/71	0	0.0
		3/15/71	11	2.1



SNOW COURSE Name	No.	Date	Depth (In.)	Water (In.)
Phlox Point	21D8	3/18/71	211	90.5
Quartz Mountain	20G6	1/14/71	26	5.4
		2/17/71	11	4.3
		3/16/71	32	7.6
		4/14/71	9	2.9
Quartz Mtn. (Extension)	20G6	1/14/71	28	5.5
		2/17/71	12	4.5
		3/16/71	34	8.1
		4/14/71	11	3.9
Quinn Ridge (Aerial)	17H6a	3/6/71	2	0.4
Railroad Overpass	22F5	1/12/71	18	2.2
		2/10/71	T	T
		3/12/71	10	3.7
		4/14/71	0	0.0
		5/13/71	0	0.0
Red Canyon (Aerial)	16G11a	3/6/71	21	6.7
Salt Creek Falls	22F4	1/12/71	60	13.9
		2/10/71	44	15.2
		3/12/71	75	23.2
		4/14/71	66	27.3
		5/13/71	40	17.3
Santiam Junction	21E5	1/14/71	89	22.6
		2/16/71	72	26.4
		3/15/71	116	40.9
		4/15/71	84	39.6
Silvies (Aerial)	18G1a	3/6/71	10	3.3
		3/30/71	21	8.4
Siskiyou Summit	22G20	1/14/71	51	13.0
		2/12/71	24	9.1
		3/12/71	31	9.6
		4/15/71	0	0.0
Siskiyou Summit (Alt.)	22G20	1/14/71	51	13.5
		2/12/71	24	10.1
		3/12/71	33	11.8
		4/15/71	T	T
Strawberry (Aerial)	20G9a	1/28/71	24	6.7
		3/29/71	24	8.2

SNOW COURSE <u>Name</u>	<u>No.</u>	<u>Date</u>	Depth <u>(In.)</u>	Water <u>(In.)</u>
Succor Creek (Aerial)	16F6a	3/6/71	8	2.6
Summer Rim	20G2	4/29/71	55	22.0
Summer Rim (Aerial)	20G2a	3/29/71	51	17.3
Timothy Lake	21D17	3/19/71	82	30.6
Tollgate	18D3	10/26/70	9	1.5
		11/25/70	11	3.0
Triangle (Aerial)	16G4a	3/6/71	4	1.2
Trout Creek (Aerial)	18G5a	3/6/71	6	1.8
Umbrella Falls	21D30	10/27/70	28	6.2
		11/28/70	62	18.3
Upper Valley	21D24	12/1/70	15	1.6
		12/15/70	20	4.2
		1/15/71	25	5.0
		2/16/71	T	T
		3/15/71	26	6.4
"V" Lake (Aerial)	18G7a	3/6/71	13	4.3
Valsetz Summit (Old course)	23E3	3/3/71	24	5.7
Vaught Ranch (Aerial)	16G12a	3/6/71	4	1.2
War Eagle (Aerial)	16G13a	3/6/71	52	16.6
Weaver Creek	22F11	2/16/71	0	0.0
		3/16/71	18	5.2
		4/14/71	0	0.0
Weston Mountain	18D17	10/26/70	0	0.0
		11/25/70	T	T
Whitewater Bridge	21E3	1/14/71	48	8.8
		2/16/71	29	11.0
		3/15/71	46	17.2
		4/15/71	10	3.8

ERRATA: 1971 SNOW MEASUREMENTS PUBLISHED IN ERROR

<u>SNOW COURSE</u> <u>Name</u>	<u>No.</u>	<u>Date</u>	<u>Depth</u> <u>(In.)</u>	<u>Water</u> <u>(In.)</u>
Battle Creek (Aerial)	16G9			
Previously Published		1/27/71	0	0.0
Correct Data		1/27/71	T	T
Battle Mountain Summit	18D12			
(Error in Area 4 only)				
Previously Published		1/26/71	6	1.6
Correct Data		1/26/71	6	1.4
Beaver Res. (Alt.)	18D9			
Previously Published		4/29/71	35	9.3
Correct Data		4/29/71	26	9.3
Big Red Mountain	22G21			
Previously Published		1/26/71	63	25.2
Correct Data		1/26/71	63	25.7
Big Sheep (Aerial)	17D14			
Previously Published		4/1/71	117	46.8
Correct Data		4/1/71	93	37.2
Billie Creek	22G13			
Previously Published		5/3/71	53	24.0
Correct Data		5/3/71	53	23.6
Champion	21F9			
Previously Published		2/1/71	74	31.0
Correct Data		2/1/71	74	31.4
Chemult	21F11			
Previously Published		3/2/71	35	10.8
Correct Data		3/2/71	36	10.8
Eilertson Meadows	18E3			
Previously Published		2/24/71	30	12.2
Correct Data		2/24/71	30	11.3
Fish Lake	22G14			
Previously Published		5/3/71	41	16.0
Correct Data		5/3/71	41	16.1
Ft. Klamath (PP&L Course)	5			
Previously Published		3/29/71	9	2.9
Correct Data		3/29/71	8	2.9



SNOW COURSE Name	No.	Date	Depth (In.)	Water (In.)
Goodrich Lake	18E6			
Previously Published		1/4/71	79	24.6
Correct Data		1/5/71	79	24.6
Grayback Peak	23G3			
Previously Published		1/28/7	55	24.0
Correct Data		1/28/71	53	23.1
Greenpoint Reservoir	21D1			
Previously Published		4/1/71	83	28.3
Correct Data		4/1/71	78	33.2
Lake of The Woods	22G15			
Previously Published		3/28/71	34	12.2
Correct Data		3/28/71	37	12.2
Logan Valley (Aerial)	18E22a			
Previously Published		3/30/71	20	7.1
Correct Data		3/30/71	21	7.1
Louse Canyon (Aerial)	17G4a			
Previously Published		1/27/71	0	0.0
Correct Data		1/27/71	T	T
Meridian Dam	22F8			
Previously Published		4/28/71	T	T
Correct Data		4/30/71	0	0.0
Mt. Ashland Switchback	22G31			
Previously Published		2/1/71	89	32.2
Correct Data		2/1/71	89	32.7
Oregon Canyon (Aerial)	17G5a			
Previously Published		1/27/71	0	0.0
Correct Data		1/27/71	T	T
Park Headquarters	22G5			
Previously Published		3/2/71	177	60.3
Correct Data		3/2/71	177	60.4
Previously Published (Area 9 only)		4/1/71	202	85.4
Correct Data		4/1/71	203	85.4
Taylor Green	17D7			
Previously Published		3/1/71	61	19.0
Correct Data		2/27/71	61	19.0

SNOW COURSE				
<u>Name</u>	<u>No.</u>	<u>Date</u>	<u>Depth (In.)</u>	<u>Water (In.)</u>
Trout Creek (Aerial)	18G5a			
Previously Published		1/27/71	0	0.0
Correct Data		1/27/71	T	T
Upper Valley	21D24			
Previously Published		2/1/71	0	0.0
Correct Data		2/1/71	T	T
Previously Published		3/30/71	21	6.3
Correct Data		3/31/71	17	4.8
Vaught Ranch (Aerial)	16G12a			
Previously Published		1/27/71	0	0.0
Correct Data		1/27/71	T	T
White Branch Slide	21E9			
Previously Published		12/31/71	24	7.5
Correct Data		12/31/71	24	7.3

#### Summer Rim

20G2

March 1st bulletin, Lake County Watershed reading should be noted as an aerial reading. (For ground survey see Klamath Watershed.) Also the reading in May 1st bulletin should be noted as an aerial reading. (For ground survey see, "Previously Unpublished Oregon Snow Survey Data" in this bulletin, Appendix, page 5.



ERRATA: 1971 SOIL MOISTURE MEASUREMENTS PUBLISHED IN ERROR

<u>SOIL MOISTURE STATION</u> <u>Name</u>	<u>No.</u>	<u>Date</u>	<u>Soil Moisture</u> <u>(In.) This Yr.</u>
Beech Creek	19E2		
Previously Published		2/24/71	12.0
Correct Data		2/24/71	16.8
Blue Mountain Springs	18E16		
Previously Published		3/26/71	12.0
Correct Data		3/26/71	12.1
Camas Creek	20G8		
Previously Published		3/31/71	13.5
Correct Data		3/31/71	13.2
Jordan Valley	17G3m		
Previously Published		3/29/71	16.6
Correct Data		3/29/71	16.7
Marks Creek	20E1		
(Upper John Day Watershed only)			
Previously Published		3/29/71	8.2
Correct Data		3/26/71	13.8
Moss Springs	17D6		
Previously Published		4/1/71	16.0
Correct Data		4/1/71	15.6
Quartz Mountain	20G6		
Previously Published		4/1/71	10.1
Correct Data		4/1/71	10.0
Tollgate	18D3		
Previously Published		2/25/71	15.4
Correct Data		2/25/71	17.0
Previously Published		3/29/71	16.4
Correct Data		3/29/71	17.3

ERRATA: RESERVOIR STORAGE

<u>STATION</u>	<u>This Year</u> <u>(Mar. 1)</u>
Clear Lake (Wasco)	
Previously Published	4.1
Correct Data	4.9

## Appendix 2

SNOW SURVEYS AT RADIO TELEMETRY SITES  
for Calibration Purposes

<u>TELEMETRY SITE</u> <u>Name</u>	<u>No.</u>	<u>Date</u>	<u>Depth</u> <u>(In.)</u>	<u>Water</u> <u>(In.)</u>
Blue Mountain Springs	18E16	12/30/70	29	5.3
		1/28/71	31	9.8
		2/24/71	39	13.3
		3/26/71	35	11.0
		4/29/71	19	7.5
Cold Springs	22G24	1/28/71	61	23.2
		4/27/71	95	39.2
Irish-Taylor	21F6	1/28/71	89	34.0
Peavine Ridge	21D14	2/1/71	46	18.1
		4/29/71	66	28.5
		5/11/71	42	21.3
Snow Mountain	19F1	1/27/71	26	6.0
		2/25/71	37	11.3
		3/25/71	44	13.3
Summer Rim	20G2	2/26/71	48	16.3
		3/29/71	56	19.0
		4/29/71	64	22.3
Three Creek	21E13	2/26/71	85	25.5
Tipton	18E9	12/30/70	37	8.8
		1/28/71	43	12.3
		2/26/71	53	14.8
		3/30/71	51	16.0
Willamette Pass	22F14	12/9/70	62	18.0